

**MOCK TEST PAPER**  
**INTERMEDIATE (IPC): GROUP – I**  
**PAPER – 3: COST ACCOUNTING AND FINANCIAL MANAGEMENT**

*Answers are to be given only in English except in the case of the candidates who have opted for Hindi medium.  
 If a candidate has not opted for Hindi medium his/ her answers in Hindi will not be valued.*

*Question No. 1 is compulsory.*

*Attempt any **five** questions from the remaining **six** questions.*

*Working notes should form part of the answer.*

**Time Allowed – 3 Hours**

**Maximum Marks – 100**

1. Answer the following:

- (a) 'Buttery Butter' is engaged in the production of Buttermilk, Butter and Ghee. It purchases processed cream and let it through the process of churning until it separates into buttermilk and butter. For the month of January, 2020, 'Buttery Butter' purchased 50 Kilolitre processed cream @ ₹ 100 per 1000 ml. Conversion cost of ₹ 1,00,000 were incurred up-to the split off point, where two saleable products were produced i.e. buttermilk and butter. Butter can be further processed into Ghee.

The January, 2020 production and sales information is as follows:

Products	Production (in Kilolitre/tonne)	Sales Quantity (in Kilolitre/tonne)	Selling price per Litre/Kg (₹)
Buttermilk	28	28	30
Butter	20	—	—
Ghee	16	16	480

All 20 tonne of butter were further processed at an incremental cost of ₹ 1,20,000 to yield 16 Kilolitre of Ghee. There was no opening or closing inventories of buttermilk, butter or ghee in January, 2020.

Required:

- (i) Show how joint cost would be apportioned between Buttermilk and Butter under Estimated Net Realisable Value method.
- (ii) 'Healthy Bones' offers to purchase 20 tonne of butter in February at ₹ 360 per kg. In case 'Buttery Butter' accepts this offer, no Ghee would be produced in February. Suggest whether 'Buttery Butter' shall accept the offer affecting its operating income or further process butter to make Ghee itself?
- (b) A company deals in trading of a toy car 'Terminato'. The annual demand for the toy car is 9,680 units. The company incurs fixed order placement and transportation cost of ₹ 200 each time an order is placed. Each toy costs ₹ 400 and the trader has a carrying cost of 20 percent p.a.

The company has been offered a quantity discount of 5% on the purchase of 'Terminato' provided the order size is 4,840 units at a time.

Required:

- (i) Compute the economic order quantity
- (ii) State whether the quantity discount offer can be accepted.

- (c) From the following information, prepare a summarised Balance Sheet as at 31<sup>st</sup> March, 2020:

Working Capital	₹ 2,40,000
Bank overdraft	₹ 40,000
Fixed Assets to Proprietary ratio	0.75
Reserves and Surplus	₹ 1,60,000
Current ratio	2.5
Liquid ratio	1.5

- (d) Mr. Katyal has taken a personal loan from a commercial bank of ₹3,00,000 for one year at a rate of 18% p.a. It has to pay the loan amount in equated monthly installments (EMIs). Compute the EMI amount to be paid per month and the total interest that would be paid up-to the end of sixth month.  
(4 × 5 = 20 Marks)

2. (a) A Ltd. manufactures two products- A and B. The manufacturing division consists of two production departments P<sub>1</sub> and P<sub>2</sub> and two service departments S<sub>1</sub> and S<sub>2</sub>.

Budgeted overhead rates are used in the production departments to absorb factory overheads to the products. The rate of Department P<sub>1</sub> is based on direct machine hours, while the rate of Department P<sub>2</sub> is based on direct labour hours. In applying overheads, the pre-determined rates are multiplied by actual hours.

For allocating the service department costs to production departments, the basis adopted is as follows:

- Cost of Department S<sub>1</sub> to Department P<sub>1</sub> and P<sub>2</sub> equally, and
- Cost of Department S<sub>2</sub> to Department P<sub>1</sub> and P<sub>2</sub> in the ratio of 2 : 1 respectively.

The following budgeted and actual data are available:

Annual profit plan data:

Factory overheads budgeted for the year:

Departments	P <sub>1</sub>	27,51,000	S <sub>1</sub>	8,00,000
	P <sub>2</sub>	24,50,000	S <sub>2</sub>	6,00,000

Budgeted output in units:

Product A 50,000; B 30,000.

Budgeted raw-material cost per unit:

Product A ₹ 120; Product B ₹ 150.

Budgeted time required for production per unit:

Department P<sub>1</sub>: Product A : 1.5 machine hours

Product B : 1.0 machine hour

Department P<sub>2</sub>: Product A : 2 Direct labour hours

Product B : 2.5 Direct labour hours

Average wage rates budgeted in Department P<sub>2</sub> are:

Product A - ₹ 72 per hour and Product B – ₹ 75 per hour.

All materials are used in Department P<sub>1</sub> only.

**Actual data (for the month of Jan, 2020):**

Units actually produced: Product A : 4,000 units

Product B : 3,000 units

Actual direct machine hours worked in Department P<sub>1</sub>:

On Product A 6,100 hours, Product B 4,150 hours.

Actual direct labour hours worked in Department P<sub>2</sub>:

On Product A 8,200 hours, Product B 7,400 hours.

Costs actually incurred:	Product A	Product B
	₹	₹
Raw materials	4,89,000	4,56,000
Wages	5,91,900	5,52,000
Overheads: Department P <sub>1</sub>	2,50,000	S <sub>1</sub> 80,000
P <sub>2</sub>	2,25,000	S <sub>2</sub> 60,000

You are required to:

- Compute the pre-determined overhead rate for each production department.
  - Prepare a performance report for Jan, 2020 that will reflect the budgeted costs and actual costs. **(8 Marks)**
- (b) A newly formed company has applied to the commercial bank for the first time for financing its working capital requirements. The following information is available about the projections for the current year:

Estimated level of activity: 1,04,000 completed units of production plus 4,000 units of work-in-progress. Based on the above activity, estimated cost per unit is:

Raw material	₹ 80 per unit
Direct wages	₹ 30 per unit
Overheads (exclusive of depreciation)	₹ 60 per unit
Total cost	₹ 170 per unit
Selling price	₹ 200 per unit

Raw materials in stock: Average 4 weeks consumption, work-in-progress (assume 50% completion stage in respect of conversion cost) (materials issued at the start of the processing).

Finished goods in stock	8,000 units
Credit allowed by suppliers	Average 4 weeks
Credit allowed to debtors/receivables	Average 8 weeks
Lag in payment of wages	Average $1\frac{1}{2}$ weeks

Cash at banks (for smooth operation) is expected to be ₹ 25,000

Assume that production is carried on evenly throughout the year (52 weeks) and wages and overheads accrue similarly. All sales are on credit basis only.

Find out the Net Working Capital requirement of the Company.

**(8 Marks)**

3. (a) 'Healthy Sweets' is engaged in the manufacturing of jaggery. Its process involve sugarcane crushing for juice extraction, then filtration and boiling of juice along with some chemicals and then letting it cool to cut solidified jaggery blocks.

The main process of juice extraction (Process – I) is done in conventional crusher, which is then filtered and boiled (Process – II) in iron pots. The solidified jaggery blocks are then cut, packed and dispatched. For manufacturing 10 kg of jaggery, 100 kg of sugarcane is required, which extracts only 45 litre of juice.

Following information regarding Process – I has been obtained from the manufacturing department of *Healthy Sweets* for the month of January, 2020:

	(₹)
Opening work-in process (4,500 litre)	
Sugarcane	50,000
Labour	15,000
Overheads	45,000
Sugarcane introduced for juice extraction (1,00,000 kg)	5,00,000
Direct Labour	2,00,000
Overheads	6,00,000

Abnormal Loss: 1,000 kg

Degree of completion:

Sugarcane	100%
Labour and overheads	80%

Closing work-in process: 9,000 litre

Degree of completion:

Sugarcane	100%
Labour and overheads	80%

Extracted juice transferred for filtering and boiling: 39,500 litre

(Consider mass of 1 litre of juice equivalent to 1 kg)

You are required to Prepare using average method:

- Statement of equivalent production,
- Statement of cost,
- Statement of distribution cost, and
- Process-I Account.

**(8 Marks)**

- (b) A company has to make a choice between two projects namely A and B. The initial capital outlay of two Projects are ₹1,35,000 and ₹ 2,40,000 respectively for A and B. There will be no scrap value at the end of the life of both the projects. The opportunity Cost of Capital of the company is 16%. The annual incomes are as under:

Year	Project A	Project B	Discounting factor @ 16%
1	--	60,000	0.862
2	30,000	84,000	0.743

3	1,32,000	96,000	0.641
4	84,000	1,02,000	0.552
5	84,000	90,000	0.476

You are required to calculate for each project:

- (i) Discounted payback period
- (ii) Profitability index
- (iii) Net present value

**(8 Marks)**

4. (a) A contractor has entered into a long term contract at an agreed price of ₹18,70,000 subject to an escalation clause for materials and wages as spelt out in the contract and corresponding actuals are as follows:

	Standard		Actual	
Materials	Qty (tons)	Rate (₹)	Qty (tons)	Rate (₹)
A	6,000	50.00	6,050	48.00
B	3,000	80.00	2,950	79.00
C	2,500	60.00	2,600	66.00
	Hours	Hourly Rate (₹)	Hours	Hourly Rate (₹)
X	3,000	70.00	3,100	72.00
Y	2,500	75.00	2,450	75.00
Z	3,000	65.00	3,100	66.00

Reckoning the full actual consumption of material and wages, the company has claimed a final price of ₹ 18,94,100. Give your ANALYSIS of admissible escalation claim and indicate the final price payable. **(8 Marks)**

- (b) The Modern Chemicals Ltd. requires ₹ 25,00,000 for a new plant. This plant is expected to yield earnings before interest and taxes of ₹ 5,00,000. While deciding about the financial plan, the company considers the objective of maximising earnings per share. It has three alternatives to finance the project- by raising debt of ₹ 2,50,000 or ₹ 10,00,000 or ₹ 15,00,000 and the balance, in each case, by issuing equity shares. The company's share is currently selling at ₹ 150, but is expected to decline to ₹125 in case the funds are borrowed in excess of ₹10,00,000. The funds can be borrowed at the rate of 10% upto ₹ 2,50,000, at 15% over ₹ 2,50,000 and upto ₹10,00,000 and at 20% over ₹ 10,00,000. The tax rate applicable to the company is 50%. Which form of financing should the company choose? **(8 Marks)**
5. (a) Elaborate the practical application of Marginal Costing.
- (b) Discuss basic assumptions of Cost Volume Profit analysis.
- (c) Explain the importance of trade credit and accruals as source of working capital. What is the cost of these sources?
- (d) Write short notes on Bridge Finance. **(4 x 4 =16 Marks)**
6. (a) Following data is extracted from the books of XYZ Ltd. for the month of January, 2020:
- (i) Estimation-

Particulars	Quantity (kg.)	Price (₹)	Amount (₹)
Material-A	800	?	--
Material-B	600	30.00	18,000
			--

Normal loss was expected to be 10% of total input materials.

(ii) Actuals-

1480 kg of output produced.

Particulars	Quantity (kg.)	Price (₹)	Amount (₹)
Material-A	900	?	--
Material-B	?	32.50	--
			59,825

(iii) Other Information-

Material Cost Variance = ₹ 3,625 (F)

Material Price Variance = ₹ 175 (F)

You are required to CALCULATE:

- Standard Price of Material-A;
- Actual Quantity of Material-B;
- Actual Price of Material-A;
- Revised standard quantity of Material-A and Material-B; and
- Material Mix Variance.

(8 Marks)

(b) From the following, prepare Income Statement of Company A and B.

Company	A	B
Financial leverage	3:1	4:1
Interest	₹ 200	₹ 300
Operating leverage	4:1	5:1
Variable Cost as a Percentage to Sales	$66\frac{2}{3}\%$	75%
Income tax Rate	45%	45%

(8 Marks)

7. Answer any **four** of the following:

- Discuss the effect of overtime payment on productivity.
- Discuss the components of budgetary control system.
- Explain briefly the functions of Treasury Department.
- Discuss the composition of Return on Equity (ROE) using the DuPont model
- Distinguish between the following:
  - 'Scraps' and 'Defectives' in costing.
  - Profit Maximisation and Wealth Maximisation.

(4 x 4 =16 Marks)